

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

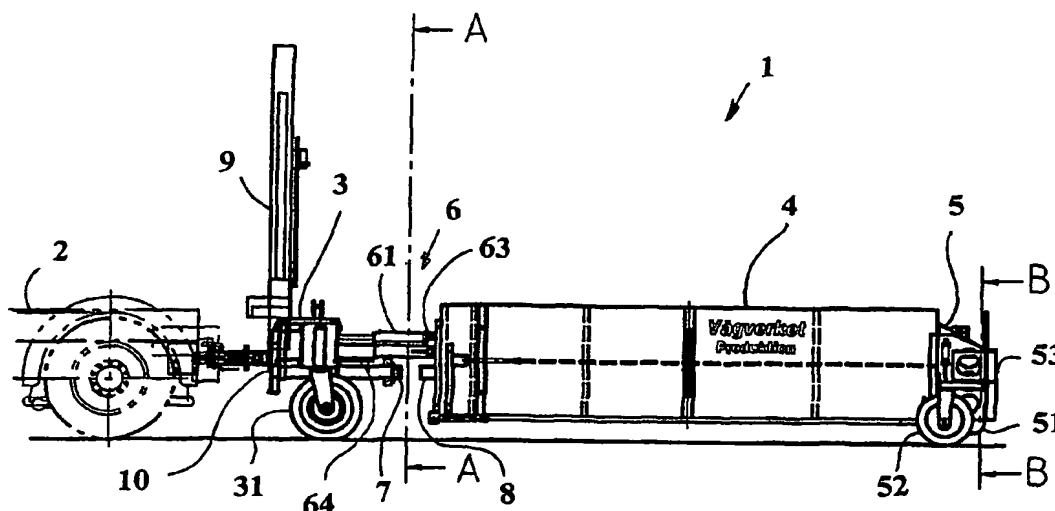
(19) World Intellectual Property
Organization
International Bureau(43) International Publication Date
8 July 2004 (08.07.2004)

PCT

(10) International Publication Number
WO 2004/056614 A1

- (51) International Patent Classification⁷: **B60R 19/00**, E01F 15/14
- (74) Agent: **FÖRSVARETS MATERIELVERK**; Patententheten, S-115 88 Stockholm (SE).
- (21) International Application Number:
PCT/SE2003/002036
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date:
19 December 2003 (19.12.2003)
- (84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (25) Filing Language: Swedish
- (26) Publication Language: English
- (30) Priority Data:
0203813-1 20 December 2002 (20.12.2002) SE
- (71) Applicant (*for all designated States except US*): **VÄGVERKET** [SE/SE]; Vägverket Produktion, S-781 87 Borlänge (SE).
- (72) Inventor; and
- (75) Inventor/Applicant (*for US only*): **CARLSON, Arne** [SE/SE]; Sälvägen 4, S-660 50 Vålberg (SE).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: IMPACT ATTENUATING DEVICE FOR VEHICLE



(57) Abstract: The invention relates to an impact-attenuating device (1) connected to a vehicle (2), especially a lorry. The impact attenuator (1) comprises a front part (3), an attenuating part (4), a rear part (5), and an extension device (6). The front part (3) is connected to the vehicle (2) in order to, during a collision into the impact attenuator; transfer the forces from the attenuator to the vehicle. The front part (3) comprises two wheels (31), with a pivot function, suspension (32), and a traffic routing board (9). Between the front part (2) and the attenuating part (4) is the extension device (6) arranged. The extension device (6) has a transport position and an operation position. In the transport position the extension device (6) is in its extended position and the attenuating device (4) is moved away from the front part (3). The extension device (6) is connected to the attenuating device (4) via a horizontal joint (63). In the transport position the extension device is hanging freely between the rear part (5) and the front part (3).